IN THE SPECIFICATION:

Page 1 amend the paragraph beginning on line 2 to read:

- - **Field and Background of the Invention:**

The present invention refers to a configuration for the acquisition and/or monitoring of medical data ~~according to the introduction of claim 1~~ and a method for the acquisition and/or monitoring of the state of health or of medical data of a person or an animal. - -

Page 1 amend the paragraph beginning on line 14 to read:

- - Pulsoximetry is a widely used standard optical technology for non-invasive monitoring of pulsation and oxygen saturation in arterial human or animal blood ~~[1]~~. The method consists of measuring the absorption of reduced (Hb) - and oxidized (HbO_2) hamoglobin at two optical wavelengths, where the relative absorption coefficients differ significantly, e.g. 660 nm and a second wavelength in the range of 800 to 1000 nm, preferably 890 nm or 950nm. ~~A concise description of the measurement method and the sensor signals is given in [2].~~ - -

Page 3 amend the paragraph beginning on line 15 to read:

- - **Summary of the Invention**

It is therefore an object of the present invention to define optical and/or electronic means for increasing the Signal-to-Noise ratio (S/N) and Signal-to-Background ratio (S/B) of a pulsoximeter sensor for robust application of polsoximetry in telemedicine - and near patient testing applications in rough (optical) environmental conditions, e.g. at changing ligjt

influences, such as sunlight, shadow, artificial light, etc. - -

Page 8 amend the paragraph beginning on line 8 to read:

- - **<u>Brief Description of the Drawings</u>**

The invention will be explained in further detail by examples and with reference to the enclosed figures.

Therein depicted: - -

Page 9 amend the paragraphs beginning on line 21 and 24 to read:

- - <u>Figs. 10a and 10b</u> further fixing <u>systems</u> for arranging a pulsoximetric sensor system as an alternative to a clip according to Figs. 1 and 2.

<u>Description of the Preferred Embodiments</u>

Fig. 1 shows schematically the arrangement of an ear sensor 1 which can be arranged in form of an ear clip. This sensor 1 can be arranged e.g. at an earlobe of ear 2. Furthermore, the sensor or ear clip is connected via a wire 3 and the connection 5 with the main unit 7 including e.g. a power source, like a battery, and measuring and/or monitoring electronics. - -

Page 11 amend the paragraph beginning on line 17 to read:

- - Therefore, it is proposed , as shown in Fig. 4, to use beam shaping optics [[20]] <u>21</u> to direct the emitted optical radiation 8 emitted from the two LEDs 15 to the middle of

the earlobe. As it is shown clearly in Fig. 4, using the beam shaping optics 21, the two initial light beams 8 are guided in form of bundled beams 12 to a relatively small area within the ~~middle~~ ear 2. By using the beam shaping optics 21, of course the influence of environmental light or noise, respectively, can be reduced substantially by increasing the S/B ratio. First of all, the light beam is bundled and, in addition, the optical signal power can be increased. - -

Page 14 amend the paragraph beginning on line 21 to read:

- - The basic idea of using AC-Coupling or Lock-In Amplification (synchronous detection), is to temporarily modulate the optical radiation of the LED at the carrier frequency f_c in order to shift the power spectrum of the pulsoximeter signals into a higher frequency range where environmental optical radiation is unlikely and electronic band pass filtering is technologically less stringent. AC-Coupling or Lock-In Amplification is well known out fo the state of art ~~and is described in literature 3~~. - -

Page 16 amend the paragraph beginning on line 3 to read:

- - As a consequence, it is therefore proposed to emit light by the LEDs not as current or continuous light but as pulsed light. The frequency is chosen in such a way that it is outside the frequency spectrum of sunlight and of ambient light which, according to Fig. 7b, is in the range of above approximately 1000 Hz. Thus, the pulsoximeter signals are readily discriminated from electronic and parasitic contributions of environmental optical radiation outside the frequency f_c +/- 5 Hz increasing significantly the Signal-to-Noise and Signal-to-Background ratio. Fig. 8 shows the shift spectrum of signal to a region where

there is little influence, e.g of ambient light. F_0 is the chosen frequency of the emitted light to operate the pulsoximeter sensor and the range between f_0 - 5 Hz and f_0 + 5 Hz is the consequence of influence of the frequency due to physiological signal. Therefore, as shown in Fig. 8, the frequency spectrum of a signal at the photo diode does have a basic signal contribution due to physiological signal. The signal contribution which is shown at the top of the signal contribution due to physiological signal and which is due to ambient light, is very small and as a consequence is approximately neglectable. Any noise or sunlight within the range of 0 to 120 Hz, while the light beam for the pulsoximeter measurement is within the range of approximately f_0 - 5 Hz and f_0 + 5 Hz, will not influence the measurement of the pulsoximeter sensor. F_0 could be e.g., as mentioned, 1000 Hz which of course is a frequency far outside of any indoor light source, as e.g. halogen light, conventional light, etc. f_0 of course can be chosen at any other frequency, as e.g. 2000 Hz or even higher. By using light source modulation, it is even possible to use an additional filter removing a certain frequency spectrum. Looking e.g. at Fig. 9, it is possible to arrange a filter band pass 51 which is e.g. removing any frequencies in the range of 0 to 120 Hz. The respective filter is shown in form of the dashed line 51. As a result, we end up by a diagram according to Fig. [[9b]] 9 only showing any measurements in the range of f_0 - 5 Hz and f_0 + 5 Hz. - -